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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,094	03/30/2001	Chia-Lin Chu	H052617.1093US0	9060
1200	7590	10/19/2004	EXAMINER	
AKIN, GUMP, STRAUSS, HAUER & FELD 1111 LOUISIANA STREET 44TH FLOOR HOUSTON, TX 77002			LETT, THOMAS J	
			ART UNIT	PAPER NUMBER
			2626	3

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/822,094

Applicant(s)

CHU ET AL.

Examiner

Thomas J. Lett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-12 and 23-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Kawanabe et al (US Patent 6,219,153 B1).

With respect to claim 1, Kawanabe et al disclose that it is desirable to know a print head's ink density, as well as other print head characteristics which may affect printing so that these variations may be compensated for before printing (col 1, line 66 - col 2, line 3). Kawanabe et al disclose a photo sensor (e.g., automatic alignment sensor 82 shown in FIG. 6A) in cartridge receptacles 64 measures print density (col 16, lines 23-25), which reads on accessing characterization data of a color ink cartridge of a color ink jet printer; and also disclose a printer driver 114 controls printer 30 for both black and color printing and supplies print data for print out according to the configuration of printer 30. Print data is transferred to printer 30, and control signals are exchanged between host processor 23 and printer 30 (col 15, lines 26-31), which reads on rendering consistent color for the color ink jet printer based on the characterization data.

With respect to claim 2, Kawanabe et al disclose that it is desirable to know a print head's ink density, as well as other print head characteristics which may affect printing so that these variations may be compensated for before printing (col 1, line 66 - col 2, line 3), which reads on the characterization data comprises density data of the color ink cartridge.

With respect to claim 3, Kawanabe et al disclose the non-volatile memory (NVRAM) is capable of storing various profile parameters and measurements of the print head or print heads, including ink information. This information is in turn output to a host computer which utilizes this information to produce image information for printing (col 2, lines 23-25), which reads on adding the characterization data to a printer profile for the color ink jet printer.

With respect to claim 4, Kawanabe et al disclose EEPROM 132, shown as non-volatile memory section 159, stores a set of parameters that are used by host processor 23 and that identify printer and print heads, print head status, print head alignment, and other print head characteristics (col 17, lines 62-66), which reads on reading an identifier for the color ink cartridge associated with the characterization data of the color ink cartridge to perform the accessing step based on the identifier.

With respect to claim 5, Kawanabe et al disclose in Table 2, EEPROM 132 stores, in addition to print head alignment and optical density information, information and parameters relating to a waste ink amount, print head change count, print head cleaning times, print head ID, print head type, etc. (col 39, lines 47-52), which reads on the identifier comprises a serial number of the color ink cartridge.

With respect to claim 6, Kawanabe et al disclose that after going online, host processor 23 will output a status request (STATUS) command to printer 30 in order to obtain any new information or parameters which may have changed while the printer was offline (col 40, lines 26-29), which reads on accessing the characterization data over the Internet.

Claim 7 is a program claim and is rejected for the same reasoning as that of claim 1.

Claim 8 is a program claim and is rejected for the same reasoning as that of claim 2.

Claim 9 is a program claim and is rejected for the same reasoning as that of claim 3.

Claim 10 is a program claim and is rejected for the same reasoning as that of claim 4.

Claim 11 is a program claim and is rejected for the same reasoning as that of claim 5.

Claim 12 is a program claim and is rejected for the same reasoning as that of claim 6.

With respect to claim 23, Kawanabe et al disclose a system consisting of a host processor 23 which reads on a processor; EEPROM 132 stores a plurality of printer profile parameters which are registered with host processor 23 for various purposes, such as for providing compensation parameters to host processor 23 which are in turn used to compensate for physical characteristics of both a print head and ink within

a print head cartridge (col 39, lines 41-46), which reads on a printer color correction program executable by the processor, the program comprising: code to access characterization data of a color ink cartridge of a color ink jet printer; and code to render consistent color for the color ink jet printer based on the characterization data.

With respect to claim 24, Kawanabe et al disclose EEPROM 132 stores a plurality of printer profile parameters which are registered with host processor 23 for various purposes, such as for providing compensation parameters to host processor 23 which are in turn used to compensate for physical characteristics such as print head ID of a print head cartridge (col 39, lines 41-46), which reads on code to read an identifier for the color ink cartridge associated with the characterization data of the color ink cartridge, wherein the code to access characterization data accesses the characterization data based on the identifier.

With respect to claim 25, Kawanabe et al disclose that it is desirable to know a print head's ink density, as well as other print head characteristics which may affect printing so that these variations may be compensated for before printing (col 1, line 66 - col 2, line 3), which reads on the characterization data comprises density data of the color ink cartridge.

With respect to claim 26, Kawanabe et al disclose EEPROM 132 stores a plurality of printer profile parameters which are registered with host processor 23 for various purposes, such as for providing compensation parameters to host processor 23 which are in turn used to compensate for physical characteristics such as ink amount of within a print head cartridge (col 39, lines 41-46), which reads on code to compare the

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density data to a predetermined ink cartridge density level; and code to adjust color for the color ink jet printer to match the predetermined ink cartridge density level.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 13-21, and 27-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Iwasawa et al (US Patent 4,908,635).

With respect to claim 13, Iwasawa et al disclose a density determining means for determining a recording density at every ink nozzle of the multi-nozzle type ink jet printing head and generating a density information signal (col 2, lines 13-15), which reads on code to characterize a color ink cartridge of a color ink jet printer to create ink cartridge characterization data for the color ink cartridge; and

and a control means responsive to the density determining means and having memory means storing a plurality of density-to-signal characteristics each being predetermined to correspond to one or more of the ink nozzles (col 2, lines 16-19). It is also noted that the control means identifies nozzles 1 through n, which reads on code to store the ink cartridge characterization data in association with an identifier for the color ink cartridge.

With respect to claim 14, Iwasawa et al disclose determining a recording density at every ink nozzle of the multi-nozzle type ink jet printing head and generating a

density information signal (col 2, lines 14-16), which reads on the ink cartridge characterization data comprises density data of the color ink cartridge.

With respect to claim 15, Iwasawa et al disclose density-pulse width characteristic curves corresponding to the respective ink nozzles of a multi-nozzle type ink jet printing head used in this ink jet recording apparatus (col 4, lines 32-35), which reads on the density data comprises curve fitted density data of the color ink cartridge.

With respect to claim 16, Iwasawa et al disclose a control means responsive to density information of multiple print nozzles (col 2, lines 15-18), which reads on a means for accessing characterization data of a color ink cartridge of a color ink jet printer; and

an apparatus capable of preventing the recording thickness irregularity due to the difference in characteristic between the nozzles of the multi-nozzle printing head (col 1, lines 33-37), which reads on a means for rendering consistent color for the color ink jet printer based on the characterization data.

With respect to claim 17, Iwasawa et al disclose determining a recording density at every ink nozzle of the multi-nozzle type ink jet printing head and generating a density information signal (col 2, lines 14-16), which reads on the characterization data comprises density data of the color ink cartridge.

With respect to claim 18, Iwasawa et al disclose density-pulse width characteristic curves corresponding to the respective ink nozzles of a multi-nozzle type ink jet printing head used in this ink jet recording apparatus (col 4, lines 32-35), which reads on the density data comprises curve fitted density data of the color ink cartridge.

Claim 19 is a method claim and is rejected for the same reasoning as that of claim 13.

Claim 20 is a method claim and is rejected for the same reasoning as that of claim 14.

Claim 21 is a method claim and is rejected for the same reasoning as that of claim 15.

Claim 27 is a system claim and is rejected for the same reasoning as that of claim 13.

Claim 28 is a system claim and is rejected for the same reasoning as that of claim 14.

Claim 29 is a system claim and is rejected for the same reasoning as that of claim 15.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasawa et al (US Patent 4,908,635) in view of Kawanabe et al (US Patent 6,219,153 B1).

Iwasawa et al does not disclose expressly storing the ink cartridge characterization data on a website. Kawanabe et al discloses after going online, host processor 23 will output

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a status request (STATUS) command to printer 30 in order to obtain any new information or parameters which may have changed while the printer was offline. In response, in step S3406 printer 30 will transmit printer profile parameters stored in EEPROM 132 to host processor 23 (col 40, lines 26-32). Iwasawa et al and Kawanabe et al are analogous art because they are from the similar problem solving area of using print characteristics for print compensation. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the online feature of Kawanabe et al to Iwasawa et al in order to obtain a method of accessing information from a remote or online location. The motivation for doing so would be to get data from a remote location.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Lett whose telephone number is 703-305-8733. The examiner can normally be reached on 7-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached at 703-305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Any response to this action should be mailed to:

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Commissioner of Patents and Trademarks

Washington, DC 20231

or Faxed to:

(703) 872-9314 (for Technology Center 2600 only).

Hand-delivered responses should be brought to:

Crystal Park II


2121 Crystal Drive

Arlington, VA

Sixth Floor (Receptionist).

TJL




KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER